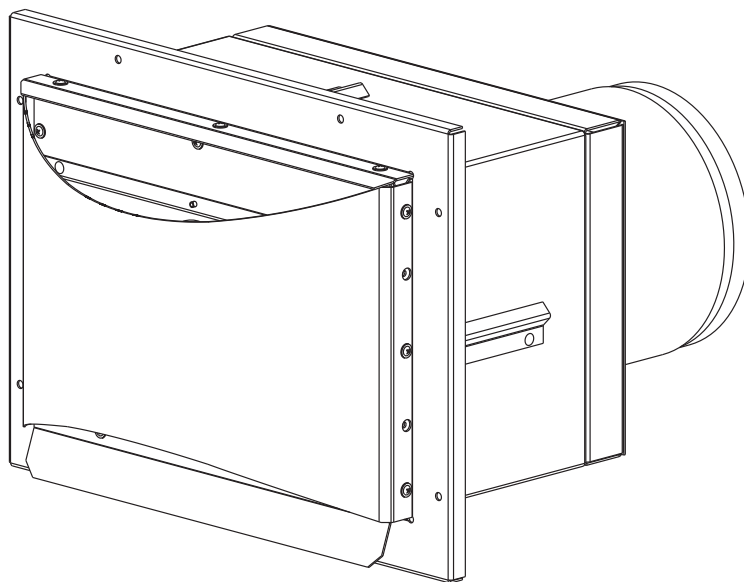




# DV Power Vent System Model 7THPDVS

**For use with Approved MHSC  
Fireplace Signature Command  
Models**



**WARNING!**

**IF THE INFORMATION IN THIS MANUAL IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.**

**FOR YOUR SAFETY  
WHAT TO DO IF YOU SMELL GAS:**

- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Extinguish all flames.
- Immediately call your gas supplier from your neighbours phone. Follow the gas suppliers instructions.
- If you cannot reach your gas supplier call the fire department.

**FOR YOUR SAFETY**

**DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPOURS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.**

- Installation and service must be performed by a qualified installer, service agency or your gas supplier.

Electrical connections should be performed by a qualified electrician,

The main power supply must be turned off before connecting power vent to main power supply or before performing any service.

## Homeowner's Installation and Operating Manual



**INSTALLER: Leave this manual with the appliance.  
CONSUMER: Retain this manual for future reference.**

## Table of Contents

General Information .....	3
Venting Runs .....	4
Termination Locations.....	5
Termination Clearances.....	6
Clearance to Combustible Materials and Access Door .....	7
7THPDVS Power Vent System Wiring Diagram.....	8
Junction Box Wiring Diagram .....	8
7THPDVS Power Vent Termination Installation .....	9
Install Probe Vent Assembly and Venting Pipe .....	9
Restrictor Plate Installation and Set Up .....	10
Route Wiring from Power Vent .....	10
Connect Wiring to Junction Box.....	11
Install Power Vent Module .....	11
Set Up Signature Command System for Power Vent Operation .....	12
7THPDVS Power Vent System Operation.....	12
7THPDVS Power Vent System Components .....	13
Horizontal Venting Components .....	14

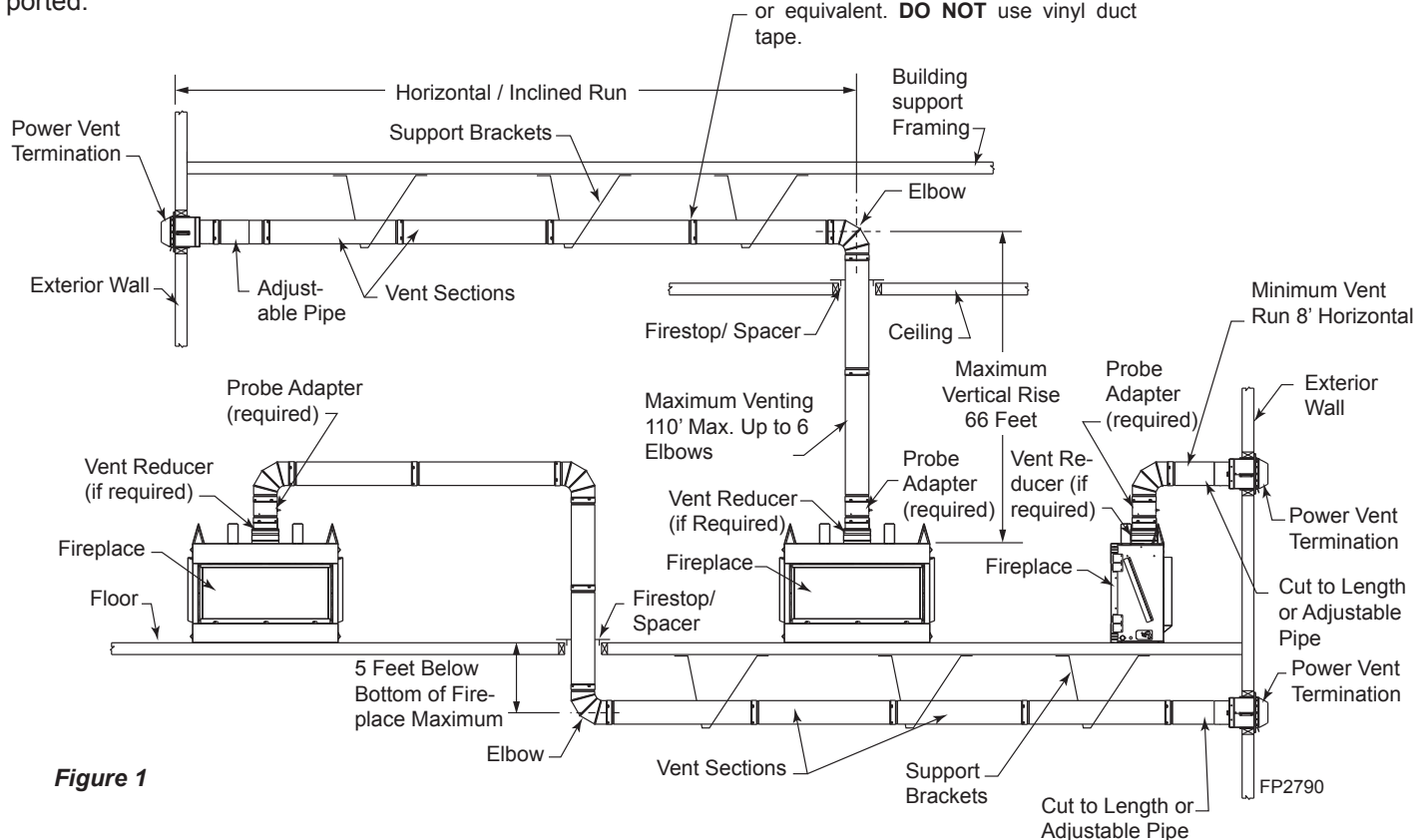
## General Information and Instructions for the DV-Power Vent System Model 7THPDVS

- This DV Power Vent is designed to be serviced from either inside or outside the dwelling. However, if it must be serviced from the inside, a permanent access panel must be supplied.
- This DV Power Vent System was designed to be used only on units with Signature Command (SC or TSC). If the Power Vent System is to be used with a Signature Command (SC) unit, the A/C Module (SCSACM) must also be installed. The Signature Command (TSC) units will have the A/C Module (SCSACM) already installed.
- This DV Power Vent System was certified by CSA to be used only with MHSC Signature Command Direct Vent fireplace models:
 

BDV/DVB	MLDV/DVML
BLDV/DVBL	VCFDV
CDV	VHLDV
HBDV/DVBH	VWDV
KHLDV	WDV
KSTDV	WDVST
MDV/DVM	
- When using the Power Vent with the KHLDV, KSTDV, VHLDV or VCFDV Series fireplaces, the rear burner shut-down feature will no longer function. (Refer to diagram and notes on Page 8, Figure 6)
- This DV Power Vent System must be installed by a qualified professional according to these instructions.
- Plan the venting layout before starting the installation.
- Only vent components manufactured by MHSC (4 x 7 twist lock) are approved for use with this DV Power Vent System. Units with 5 x 8 venting use an 5 x 8 to 4 x 7 twist lock reducer (7TDVP58).
- Disconnect power supply when installing or servicing the fireplace or the power vent system.
- The Signature Command battery back up feature will not function when using the Power Vent.
- Standing Pilot Mode is not available when using the Power Vent System.

Maximum vent is 110 feet, plus six 90° elbows or twelve 45° elbows. Minimum horizontal vent length is 8 feet, maximum vertical rise above the fireplace is 66 feet. The vent can be installed with any combination of rise and run between appliance and termination, including up to 5 feet below the unit. *Figure 1.* Ensure vent pipe is properly supported.

**NOTE:** All outside pipe joints must be sealed with flexible aluminum duct tape or equivalent. **DO NOT** use vinyl duct tape.

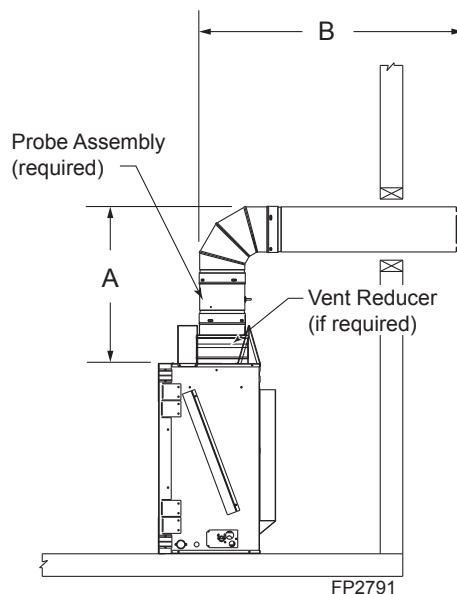


**Figure 1**

**NOTE:** When using fireplaces with 5 x 8 venting collar, a vent reducer must be used as the first starting pipe (7TDVP58) before the probe assembly.

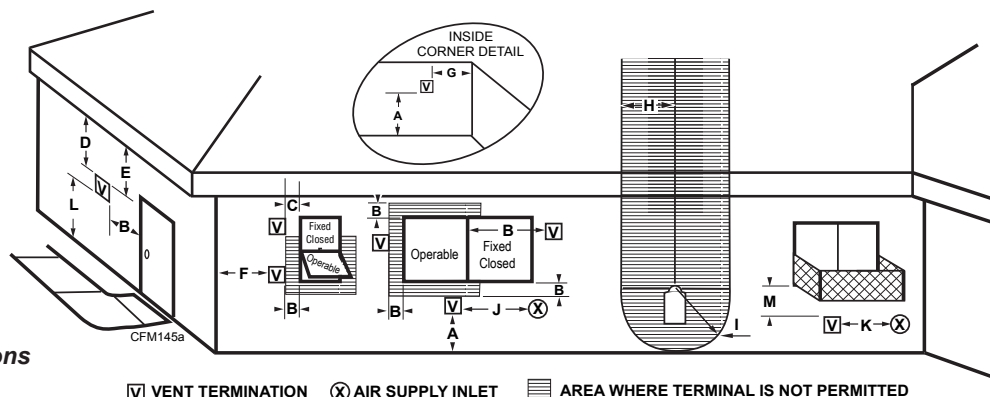
Power Vent Venting Chart		
Maximum Number of Elbows	-	6
Maximum Feet of Run	A + B	110 feet
Minimum Horizontal Run	B	8 feet
Minimum Vertical Rise	A	Probe Assembly and Elbows
Maximum Vertical Rise	A	66 feet

**Figure 2**



## GENERAL VENTING INFORMATION - TERMINATION LOCATION

**Figure 3 -  
Termination Locations**



	Canadian Installations <sup>1</sup>	US Installations <sup>2</sup>
A = Clearance above grade, veranda, porch, deck, or balcony	12" (30 cm)	12" (30 cm)
B = Clearance to window or door that may be opened	6" (15 cm) for appliances < 10,000 BTU/h (3kW), 12" (30 cm) for appliances > 10,000 Btuh (3kW) and < 100,000 BTU/h (30kW), 36" (91 cm) for appliances > 100,000 BTU/h (30kW)	6" (15 cm) for appliances < 10,000 BTU/h (3kW), 9" (23 cm) for appliances > 10,000 Btuh (3kW) and < 50,000 BTU/h (15kW), 12" (30 cm) for appliances > 50,000 BTU/h (15kW)
C = Clearance to permanently closed window	12" (305 mm) recommended to prevent window condensation	12" (305 mm) recommended to prevent window condensation
D = Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2' (610mm) from the center line of the terminal	18" (458 mm)	18" (458 mm)
E = Clearance to unventilated soffit	12" (305 mm)	12" (305 mm)
F = Clearance to outside corner	see next page	see next page
G = Clearance to inside corner (see next page)	see next page	see next page
H = Clearance to each inside of center line extended above meter/regulator assembly	3' (91 cm) within a height of 15' (5 m) above the meter/regulator assembly	3' (91 cm) within a height of 15' (5 m) above the meter/regulator assy
I = Clearance to service regulator vent outlet	3' (91 cm)	3' (91 cm)
J = Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliances	6" (15 cm) for appliances < 10,000 BTU/h (3kW), 12" (30 cm) for appliances > 10,000 BTU/h (3kW) and < 100,000 Btuh (30kW), 36" (91 cm) for appliances > 100,000 BTU/h (30kW)	6" (15 cm) for appliances < 10,000 BTU/h (3kW), 9" (23 cm) for appliances > 10,000 BTU/h (3kW) and < 50,000 BTU/h (15kW), 12" (30 cm) for appliances > 50,000 BTU/h (15kW)
K = Clearance to a mechanical air supply inlet	6' (1.83 m)	3' (91 cm) above if within 10' (3 m) horizontally
L = Clearance above paved sidewalk or paved driveway located on public property	7' (2.13 m)†	7' (2.13 m)†
M = Clearance under veranda, porch, deck or balcony	12" (30 cm)‡	12" (30cm)‡

1 In accordance with the current CSA-B149 Installation Codes

2 In accordance with the current ANSI Z223.1/NFPA 54 National Fuel Gas Codes

† A vent shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings

‡ only permitted if veranda, porch, deck or balcony is fully open on a minimum 2 sides beneath the floor:

NOTE: 1. Local codes or regulations may require different clearances.

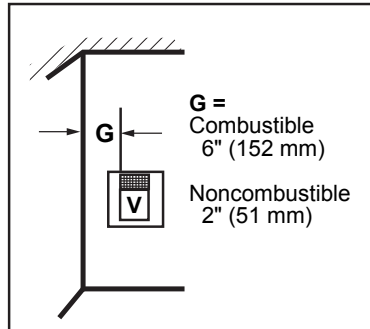
2. The special venting system used on Direct Vent Fireplaces are certified as part of the appliance, with clearances tested and approved by the listing agency.

3. MHSC assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.

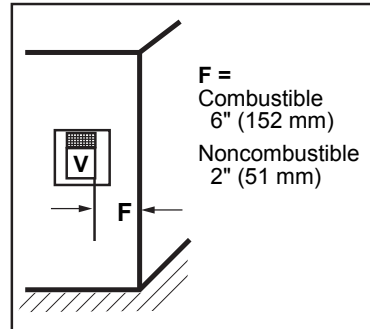
## Termination Clearances

Termination clearances for buildings with combustible and noncombustible exteriors.

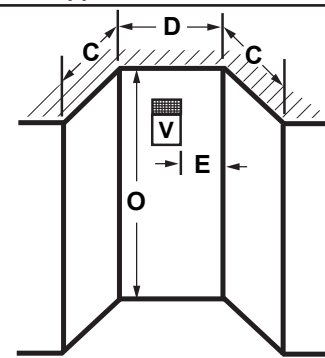
### Inside Corner



### Outside Corner

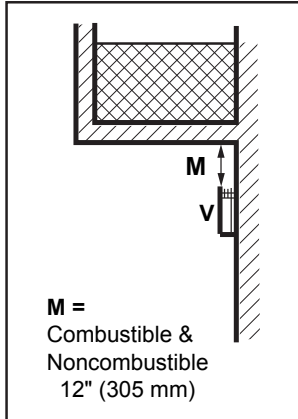


### Alcove Applications\*

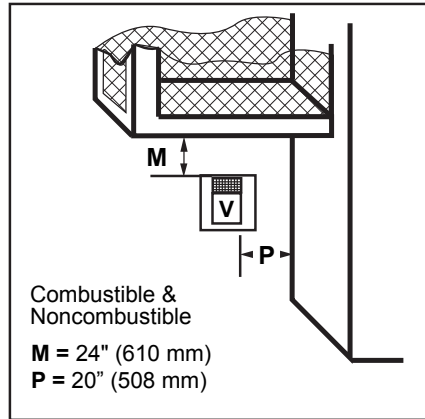


**E =** Min. 6" (152 mm) for non-vinyl sidewalls  
Min. 12" (305 mm) for vinyl sidewalls  
**O =** 8' (2.4 m) Min.

### Balcony - with no side wall



### Balcony - with perpendicular side wall



No. of Caps	D <sub>Min.</sub>	C <sub>Max.</sub>
1	3' (914 mm)	2 x D <sub>Actual</sub>
2	6' (1.8 m)	1 x D <sub>Actual</sub>
3	9' (2.7 m)	2/3 x D <sub>Actual</sub>
4	12' (3.7 m)	1/2 x D <sub>Actual</sub>

D<sub>Min.</sub> = # of Termination caps x 3  
C<sub>Max.</sub> = (2 / # termination caps) x D<sub>Actual</sub>

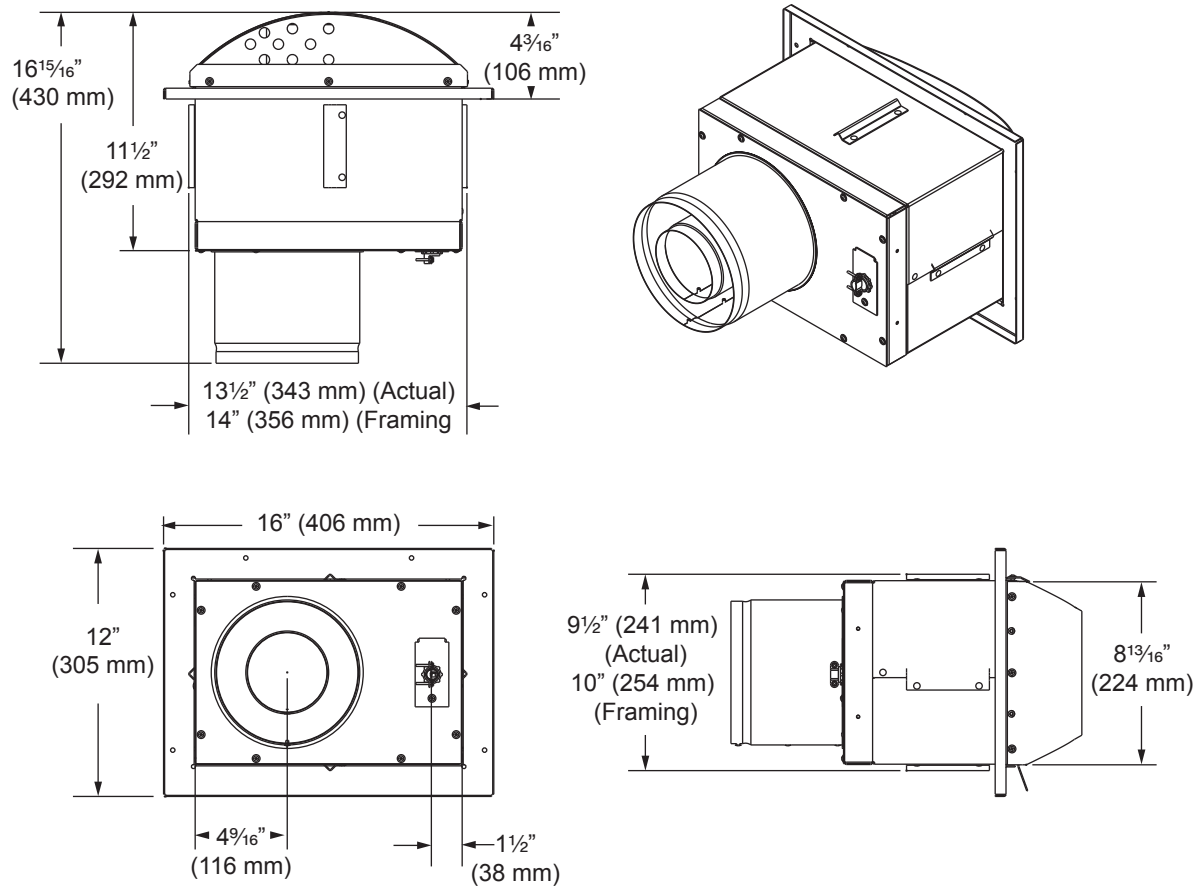
584-15

**\*NOTE:** Termination in an alcove space (spaces open only on one side and with an overhang) is permitted with the dimensions specified for vinyl or non-vinyl siding and soffits. 1. There must be a 3' (914 mm) minimum between termination caps. 2. All mechanical air intakes within 10' (1 m) of a termination cap must be a minimum of 3' (914 mm) below the termination cap. 3. All gravity air intakes within 3' (914 mm) of a termination cap must be a minimum of 1' (305 mm) below the termination cap.

**Figure 4 -**  
**Termination Clearances**

## Clearance to Combustible Materials and Access Door

- The DV Power Vent System box needs a minimum  $\frac{3}{8}$ " clearance all around the box. The DV Power Vent System box has a  $\frac{3}{8}$ " standoff on all sides.
- Vent pipes from the fireplace to the DV Power Vent System must refer to fireplace installation instructions for proper clearances.



**Figure 5**

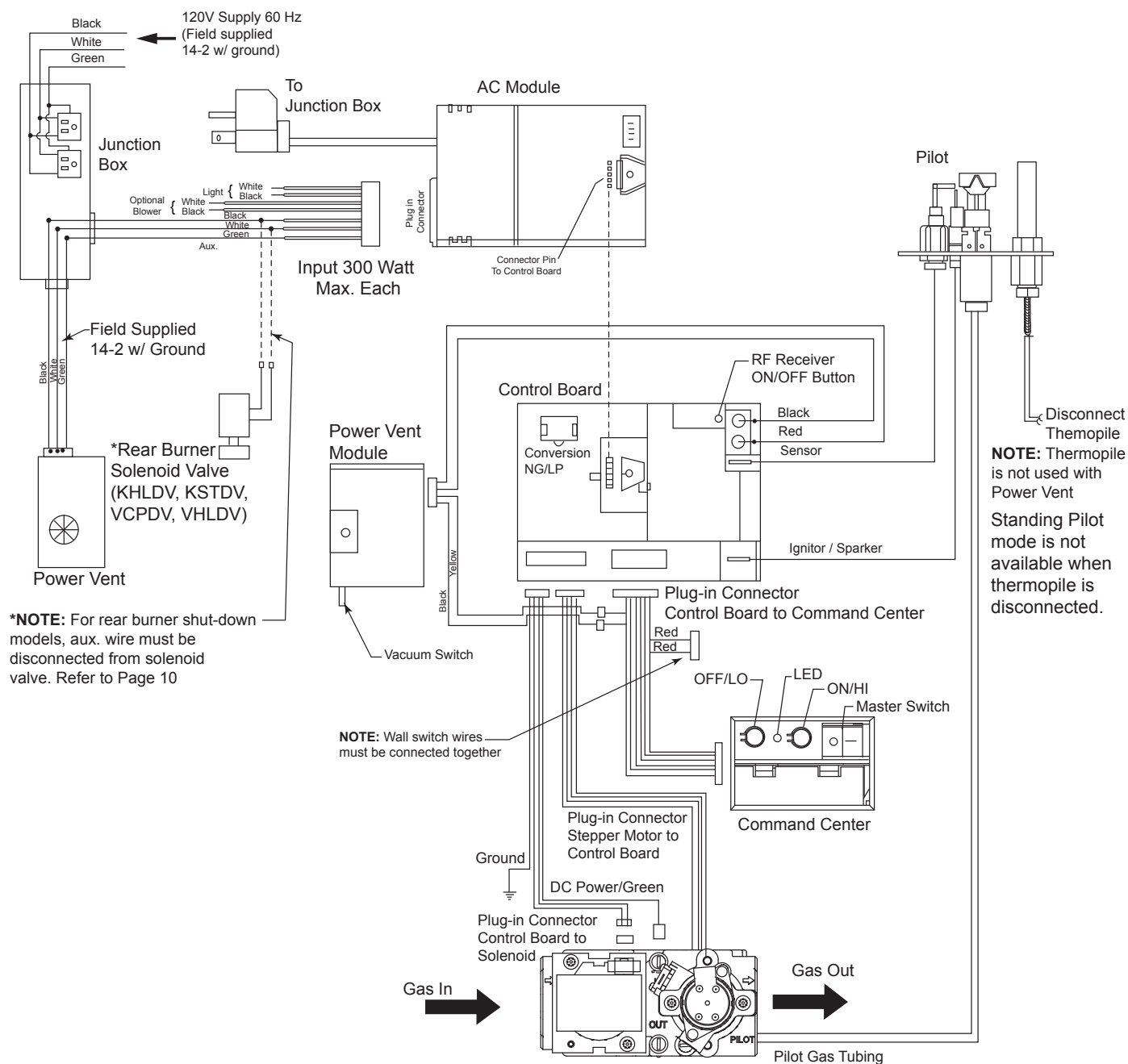


Figure 6 -  
7THPDVS Power Vent Wiring Diagram

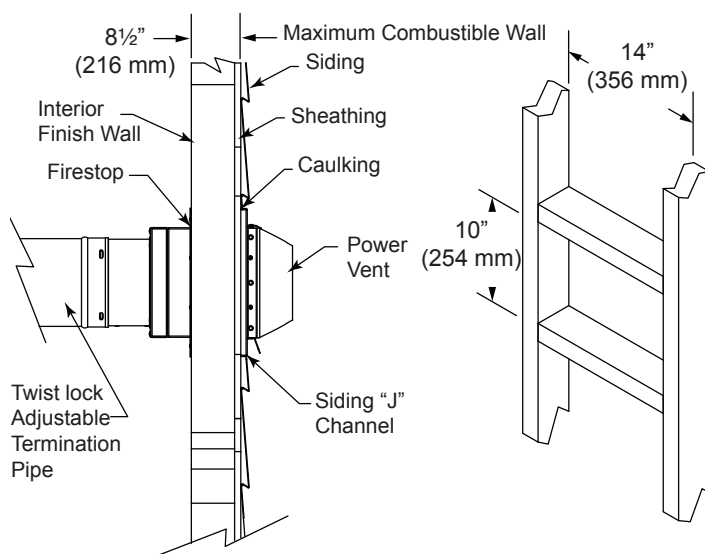
**WARNING**

**Electrical Grounding Instructions:** This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle.



## POWER VENT TERMINATION INSTALLATION

1. Locate and cut the vent opening in the wall. Combustible and noncombustible walls: Cut a 10" H x 14" W (254 x 356 mm) vent opening through the exterior wall and frame as shown in *Figure 7*.
2. Secure the firestop to the inside frame and center in the 10" H x 14" W vent opening.
3. Install the power vent in the opening through the exterior wall until the mounting flange is flush against the wall.
4. Attach the power vent with screws provided and seal top and sides of the mounting flange with caulking.



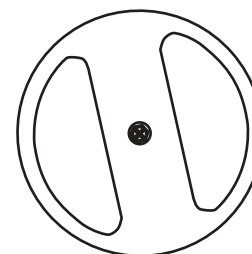
**Figure 7**

## RESTRICTOR DISC INSTALLATION AND SET UP

Before starting vent assembly, the restrictor discs must be installed. **NOTE:** Installation is easiest from the top of the fireplace.

1. Check the inside vent pipe size; either 4" or 5". Use the correct size restrictors provided for the correct vent size.
2. Stacking all three (3) restrictor discs, screw together with one stainless steel screw in center. Adjust so that all three discs are stacked fully open as shown in *Figure 8*.

**NOTE:** To achieve the proper flame appearance and ignition, the restrictor disc setting may need to be adjusted by closing any two (2) of the discs depending on each individual installation requirements. *Figure 9*. However, most installations do not require any adjustment to the fully open disc setting when outer vent pipe installation is properly sealed with aluminum tape. Refer to Page 4 and next section.



**Figure 8 -  
All Three (3) Discs Fully Open**



**Figure 9 -  
Restrictor disc  
(shown with 2 discs closed)**

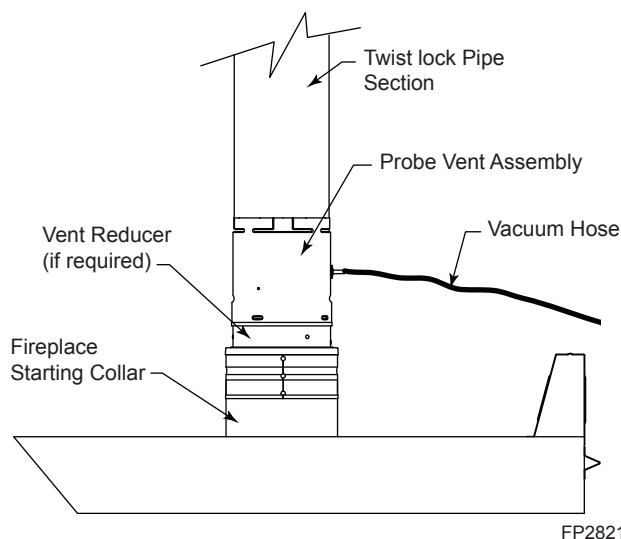
## INSTALL PROBE VENT ASSEMBLY AND VENTING PIPE

1. Attach the probe assembly to the fireplace collar:

**Fireplace collars 4 x 7 venting:** The probe assembly will slide on collar. Attach with two (2) sheet metal screws. Make sure the probe stem is facing toward the side of the fireplace where the vacuum hose will be inserted. *Figure 10*

**Fireplace collars 5 x 8 venting:** You must use a 5 x 8 to 4 x 7 reducer (7TDVP58). Install the reducer by pushing down into the fireplace collar and attach with two (2) sheet metal screws. Push the probe assembly down onto reducer and attach with two (2) sheet metal screws. Make sure the probe stem is facing toward the side of the fireplace where the vacuum hose will be inserted. *Figure 10*

2. Install the vacuum hose to the probe stem by pushing the hose onto the stem 1/4". *Figure 10*

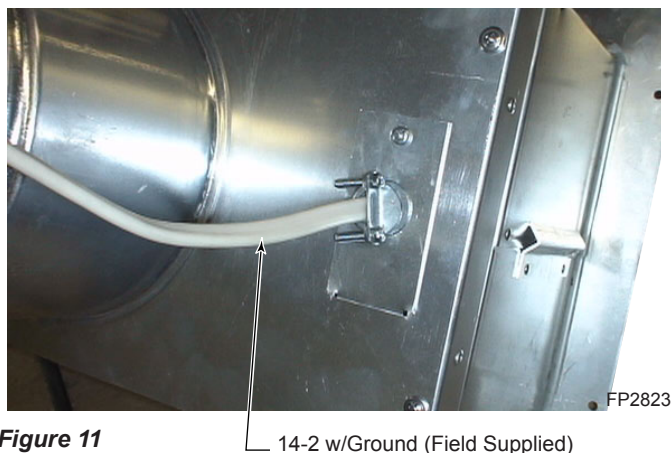


**Figure 10 -  
Probe Vent Assembly**

3. Remove the 1" knockout hole on the side of the fireplace. Snap in plastic ring provided and run vacuum hose through hole and into lower access area making sure to secure hose away from fireplace top. **DO NOT allow hose to lay on fireplace top.** Figure 16
4. Vent sections may be added to the previously installed probe assembly in accordance with the requirements of the fireplace installation manual and the vent charts provided in this instruction. **NOTE:** All outside pipe joints must be sealed with flexible aluminum duct tape or equivalent. Due to high temperatures, **DO NOT** use vinyl duct tape. **NOTE:** The last pipe before the power vent must be an adjustable termination section provided with kit or 20" termination pipe (7TDVP20/8), which can be cut to length, to attach to the power vent.
5. When the power vent installation is to be serviced from inside the dwelling, the slip pipe section must be used to attach to the power vent for future serviceability.

## ROUTE WIRING FROM POWER VENT

1. Remove the junction box cover from the power vent. Figure 11



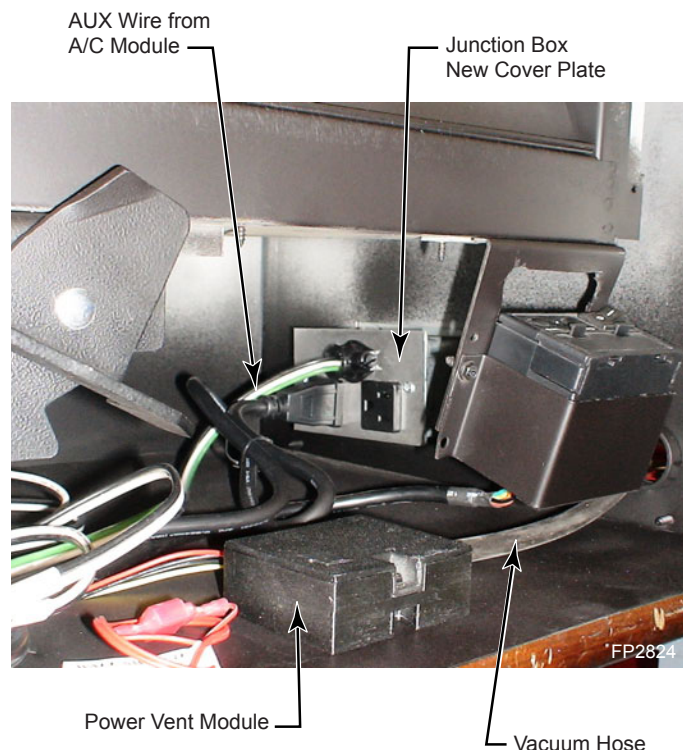
**Figure 11**

14-2 w/Ground (Field Supplied)

2. Connect the 14-2 w/ground romex wiring (not provided) to the power vent black, white and green wires with wire nuts provided. Reinstall cover and tighten strain relief. Figure 6 wiring diagram
3. Route the 14-2 w/ground wire from power vent to fireplace location. Ensure the wiring is safely placed to prevent damage by framing nails and drywall screws.

## CONNECT WIRING TO FIREPLACE JUNCTION BOX

1. Remove screw from side holding the junction box and lift out.
2. Remove cover plate and outlet from junction box and discard.
3. Run the fireplace power 14-2 w/ground (refer to fireplace installation manual) and power vent 14-2 w/ground wire through strain relief and into junction box. Figure 16
4. Run the black, white and green wires from A/C module labeled AUX through the strain relief of the new cover plate provided in the kit. **NOTE:** Some models require disconnecting the aux. wire from solenoid valve. (This will make the rear burner shut-down feature inoperable. Refer to Figure 6.) Figure 12
5. Connect the 14-2 w/ground wire from the power vent to the AUX wires from the A/C module with wire nuts. Also at this time, connect the fireplace power 14-2 w/ground wire to the outlet wires with wire nuts. Refer to wiring diagram Figure 6.
6. Reinstall the cover plate and junction box in reverse order.



**Figure 12**

## INSTALL THE POWER VENT MODULE

1. Remove the control board and Command Center through fireplace access opening.
2. Unplug the 2 ft.-6 wire cable between the control box and command center and replace with the new cable from the kit. **NOTE:** The red wires marked wall switch must be connected together if no wall switch is used.

Figure 13

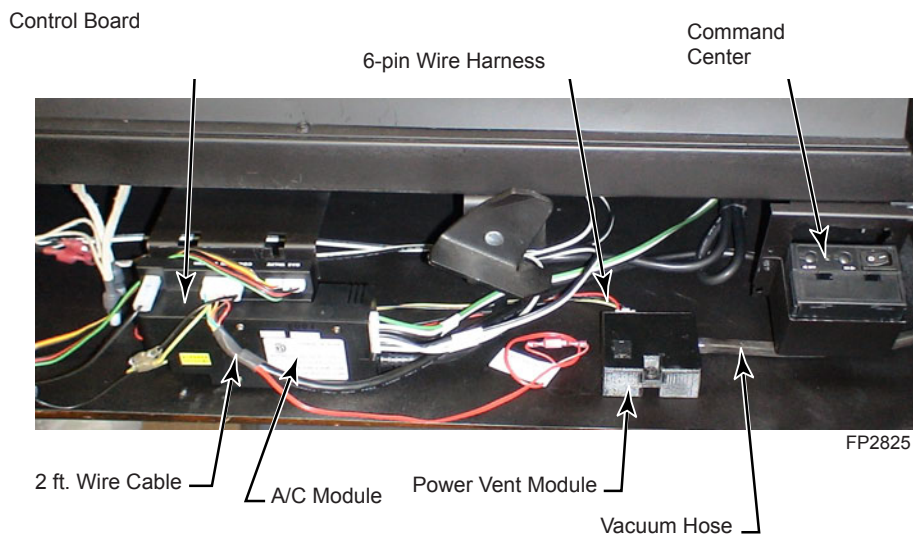


Figure 13

**NOTE:** Firebox face removed for clarity. (WDV600 shown)

3. With a Phillips screwdriver, disconnect the thermopile wires from the control board. The thermopile is not used with the power vent. *Figure 14*
4. Connect the black and red wires with the fork terminals from the power vent module wire assembly to the control board where the thermopile was disconnected. **NOTE:** The red wire must connect to the positive (+) red connection. The system is polarity sensitive. *Figure 14*
5. Connect the black and yellow wires to the two (2) black and yellow spade connectors on the 2 ft.-6 wire cable. *Figure 14*
6. Plug the wiring harness into the six (6) pin connector on the power vent module. Also attach the vacuum hose to the pressure switch on the module. Place the velcro on the module and attach to the floor of the fireplace area. *Figure 13*

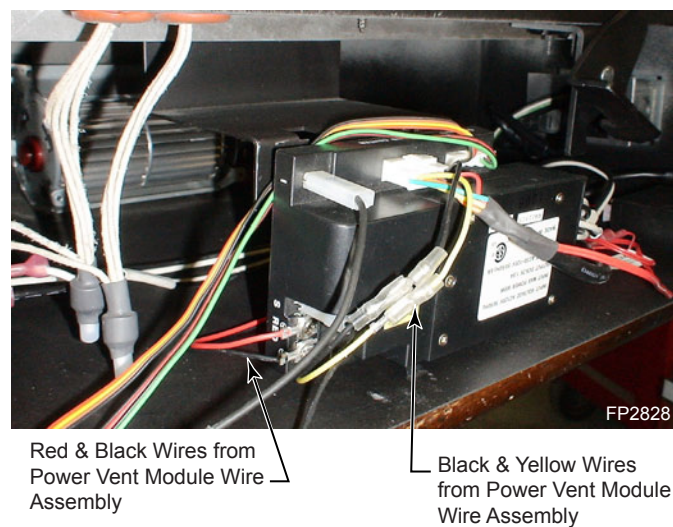
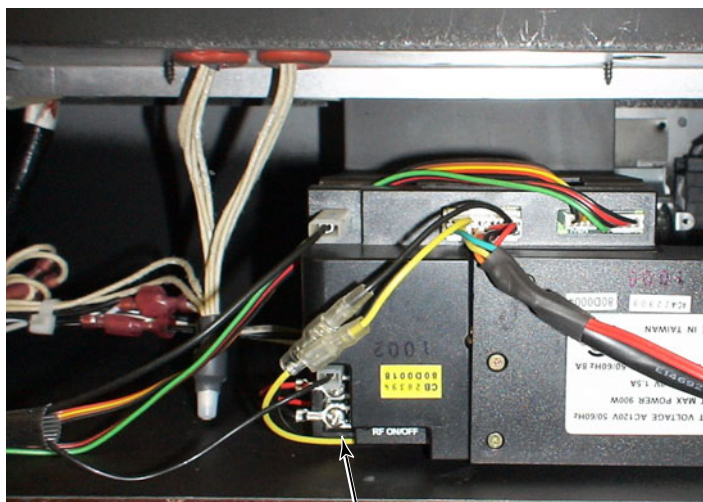


Figure 14

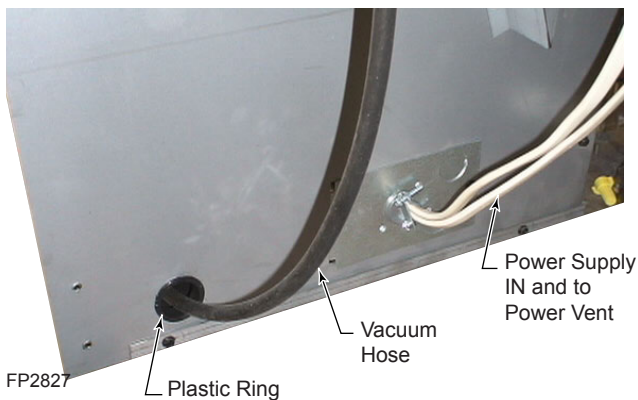




FP2826

Figure 15

Disconnect Thermopile



FP2827

Figure 16

## SET UP SIGNATURE COMMAND SYSTEM FOR POWER VENT OPERATION

The control board program must be reset to operate the power vent. Follow these instructions to reset the control board from basic to power vent operation.

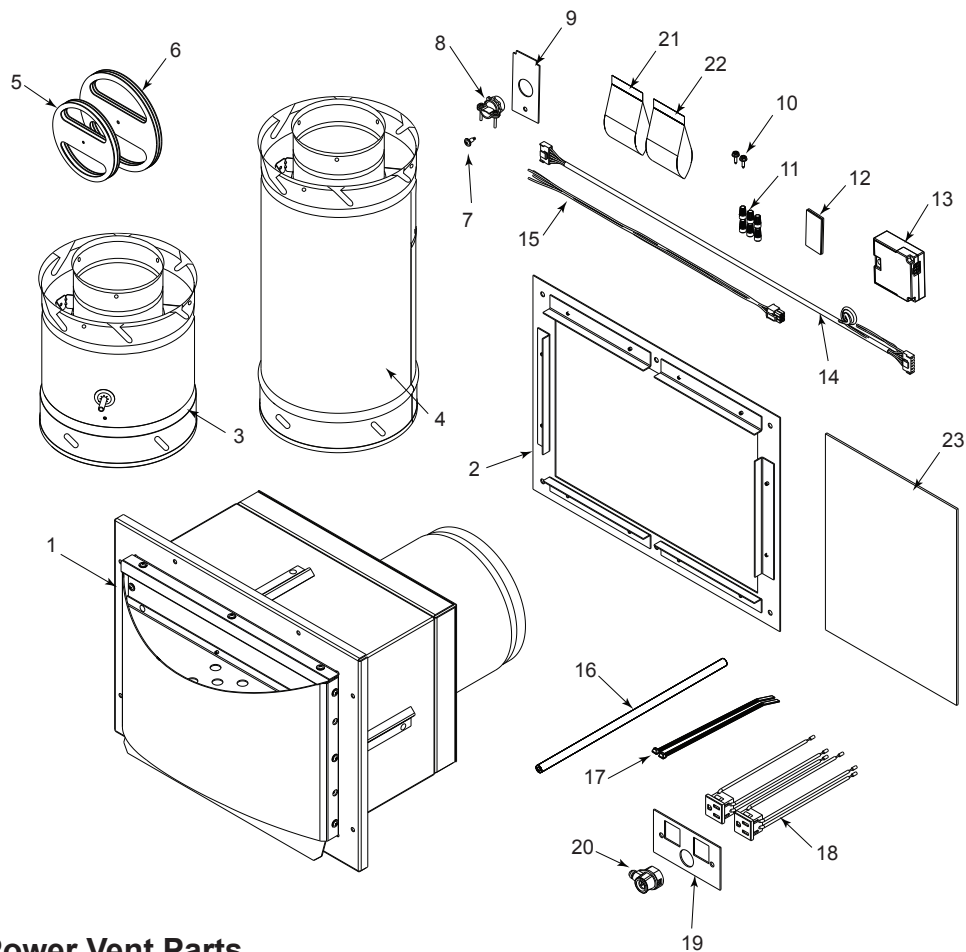
1. Turn ON power to the fireplace.
2. Turn master switch to OFF (o).
3. Locate the on/off RF button on the control board. With a paper clip, **press and hold** the RF button while turning ON the master switch. You should hear one (1) beep for power vent ON and two (2) beeps for power vent OFF and release.
4. After the power vent program is turned ON, turn OFF the master switch and place the control box back into the control access area.

The system is now ready to operate.

## POWER VENT SYSTEM OPERATION

1. Turn master switch ON (-).
2. Press the ON button at the command center or the remote.
3. The power vent blower will start.
4. After a few seconds, the igniter starts sparking and pilot will light.
5. The burner will light after a few seconds.
6. The fireplace will operate until turned off. Refer to the fireplace manual for fireplace operational instructions.

**NOTE:** Power vent blower will continue to run for 90 seconds after flame is turned off.

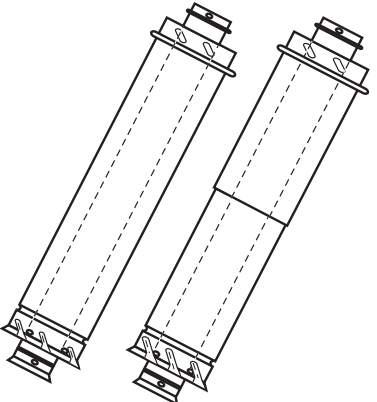
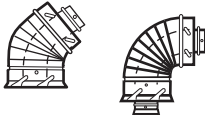
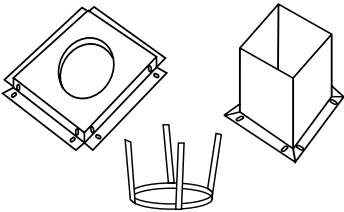


### 7THPDVS Power Vent Parts

Ref.	Description	Qty.	Part No.
1.	Termination Assy.	1	20300939
2.	Firestop Assy.	1	20302228
3.	Probe Assy.	1	20302272
4.	Adjustable Termination Pipe	1	69D3068
5.	4" Restrictor	3	45D0551
6.	5" Restrictor	3	56D3027
7.	SS Screw	1	20014369
8.	Strain Relief	1	26D0215
9.	Electrical Cover	1	20301694
10.	#8 Screw	2	0052825B
11.	Wire Nuts	6	20302355
12.	Velcro	1	37D0394
13.	Module, Power Vent SCS	1	20301934
14.	Cable, CC/CB 24" w/power leads SCS	1	20301889
15.	Wire, Power Vent Module SCS	1	20302293
16.	7 ft. Rubber Tubing	1	20302239
17.	Wire Ties	2	17D0601
18.	Receptacle	2	7522253
19.	Electrical Cover Plate	1	20302235
20.	Strain Relief Connector	1	10000821
21.	Termination Bolt Bag	1	20002404
22.	Pipe Bolt Bag	1	0056167
23.	Installation Manual	1	20302353

## HORIZONTAL VENTING

**NOTE:** The Power Vent Kit (7THPDVS) is designed and listed for use with MHSC Twist lock Direct Vent Systems only.

	Description	Model Number
Twist lock Pipe 	20" Termination Pipe - 8 pack	7TDVP20/8
	10" - 16" Adjustable Termination Pipe - 4 pack	7TDVPA/4
	12" - 18" Adjustable Vent Length	7TDVP1218
	35" - 64" Adjustable Vent Length	7TDVP3564
	8" Vent Pipe - 4 pack	7TDVP8/4
	12" Vent Pipe - 4 pack	7TDVP12/4
	24" Vent Pipe - 4 pack	7TDVP24/4
	36" Vent Pipe	7TDVP36
	36" Vent Pipe - 30 pack	7TDVP36/30
	48" Vent Pipe	7TDVP48
	48" Vent Pipe - 30 pack	7TDVP48/30
	5 x 8 to 4 x 7 Reducer	7TDVP58
Twist lock Elbows 	45° Elbow for Vertical/Horizontal Offset	7TDVP45
	45° Elbow for Vertical Offsets - 8 pack	7TDVP45/8
	90° Elbow for Vertical/Horizontal Offset	7TDVP90
	90° Elbow for Vertical/Horizontal Offset - 8 pack	7TDVP90/8
Shields and Supports 	1" Firestop	7DV1FS
	3" Firestop	7DV3FS
	1" Attic Insulation Shield	7DV1AIS
	Combination Horizontal Offset/Roof Support	7DVCS



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**MHSC**

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